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RESTORATION ADVISORY BOARD MEETING

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THURSDAY, NOVEMBER 15, 2001

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CORONADO, CALIFORNIA

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22 REPORTED BY: Nancy A. Lee, CSR No. 3870

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## 1 ATTENDANCE:

2 John Locke

3 Bob Geilenfeldt

4 Bill Collins

5 Daniel Cordero

6 Mark Bonsavage

7 Marilyn Field

8 Merry Coons

9 Robert Campbell

10 Art Van Rooy

11 Leticia Hernandez

12 Jim French

13 Anita Boyd

14 Foster Marshall

15 Jerry Bailey

16 Bob Logan

17 Dottie Marron

18 Alan Clark

19 Lee Saunders

20 Steve Sullivan

21 Bill Ulmer

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1 CORONADO, CA., THURS., NOVEMBER 15, 2001, 6:40 P.M.

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3 MR. LOCKE: Welcome everybody to the 72nd  
4 North Island Restoration Advisory Board meeting.

5 My name is John Locke. I'm from the  
6 Navy Regional Southwest. I'm the Navy Co-Chair,  
7 and Bob Geilenfeldt next to me is the Community  
8 Co-Chair.

9 I guess the first agenda item is the  
10 approval of the minutes. Can I have a motion to  
11 approve the minutes?

12 MR. VAN ROOY: So move.

13 MR. COLLINS: I'll second it.

14 MR. LOCKE: Approved.

15 Tonight we're going to have a  
16 presentation from Jim French of Bechtel concerning  
17 the Site 11 Feasibility Study. We're going to have  
18 a Site 9 removal action update, some funding  
19 information for the projects, and a presentation of  
20 an Internet RAB portal for this RAB.

21 So Jim's already up in front and ready  
22 to go.

23 MR. FRENCH: This is your last chance. I  
24 have that nice design on the board, and we could  
25 watch that for half an hour instead of me talking.

1 I guess I'll go ahead.

2 Thanks a lot, John.

3 I'm here to present the status of the  
4 Project at the Operable Unit 11 at North Island.  
5 And just to back up a little here, the title of my  
6 talk is a Feasibility Study Update, and we're in  
7 the Feasibility Study process at Operable Unit 11.

8 The Feasibility Study occurs in the  
9 environmental CERCLA process. After a site has  
10 been characterized, the problems -- the issues  
11 generally are known, and it's basically a concept  
12 level study to evaluate feasible options for  
13 addressing certain environmental problems, so  
14 that's the stage that we're at.

15 And today I'm going to talk a little  
16 bit about the background of the site, some site  
17 information, what we call our Remedial Action  
18 Objectives, what we're trying to accomplish with  
19 this Feasibility Study. Then we are going to show  
20 you the options that we're evaluating for cleanup  
21 of the soils and the groundwater at Operable Unit  
22 11, and the process, and let you know where we're  
23 headed.

24 I hope all of you got a handout that we  
25 left back there. There's plenty of copies.

1                   One note that the Feasibility Study --  
2 the work that I'll be talking about tonight is a  
3 work in progress as of this meeting. We've  
4 submitted it to the Navy and they're reviewing it  
5 at this time, so it has not been issued to the  
6 regulatory agencies or the public. So we're  
7 getting a little preview here.

8                   So OU 11 is about a ten-acre area.  
9 It's about right smack dab in the center of the NAS  
10 North Island base. The boundary of OU 11 is a  
11 former industrial waste treatment plant and oily  
12 waste treatment plant. As you can see here, it's  
13 just about smack dab on the center of the island,  
14 which is somewhat different than some of the other  
15 areas that we're looking at that's very close to  
16 the bay, obviously.

17                  It includes a number of what we call  
18 inactive solid waste management units which are  
19 referred to as SWMUs, and there are a number  
20 listed. And in the back of your handout there's a  
21 table that actually enumerates each and every SWMU  
22 that is part of this facility, and there are a  
23 number of features such as oil water separators,  
24 manholes, surface impoundments. They all have  
25 their own unique identifying numbers, and I

1 couldn't rattle off what they were -- what SWMU 41  
2 was if someone asked me, so that's why I provided  
3 the table.

4               One of the focuses are what we call the  
5 former surface impoundments, SWMUs 11 and 81, and  
6 there are a number of these on the site which  
7 received waste from the treatment process, what we  
8 call the industrial waste surface impoundments  
9 which have some ponds and sludge beds and waste  
10 sludge basins and some oily water treatment plants  
11 or OWTP basins, which have oily waste sludge beds.

12              This map here shows the location of the  
13 SWMUs on North Island, and the principal features  
14 here that we'll be talking more about are these big  
15 impoundments here -- the North Pond, South Pond,  
16 Sludge Beds -- these are the industrial waste  
17 treatment plant surface impoundments. There's also  
18 some sludge basins in here, SWMU 11, and over here  
19 the oily waste sludge beds right in this area of  
20 the site.

21              The former industrial waste treatment  
22 plant or oily waste treatment plant processed and  
23 disposed of hazardous and other wastes -- oily  
24 wastes generated by North Island and other San  
25 Diego Naval operations for a number of years.

1                   The surface impoundments that I just  
2 showed you contained wastes and appear to be the  
3 primary source of soil and groundwater  
4 contamination at OU 11. Several investigations  
5 have occurred to date.

6                   The facility is somewhat distinct from  
7 a lot of the other sites that we work at because it  
8 has undergone some RCRA permitting, and it's  
9 actually what they call -- a part is permitted and  
10 part interim status RCRA facilities. And so  
11 various permits have been issued for the facility  
12 over the time frame of the 1980s to the 1990s.

13                  As these structures were closed and  
14 updated for a new treatment plant, the Navy has  
15 attempted to close the inactive SWMUs under RCRA  
16 with efforts beginning in the late 1980s and  
17 through 1998. And under these efforts contaminated  
18 soil was removed from many of the SWMUs or the  
19 SWMUs themselves were demolished, the wastes were  
20 removed from the facilities, and the contaminated  
21 soil underneath was removed to the extent that the  
22 Navy could do so.

23                  There's an example of a concrete  
24 demolition of one of the SWMUs in the facility. So  
25 actually a lot of cleanup work has been done at

1 this site.

2                   However, what we call clean closure  
3 under RCRA has not been granted by the Cal-EPA  
4 Department of Toxic Substances for any of the SWMUs  
5 owing to the fact that there is some residual  
6 contamination in the soils.

7                   There are a lot of utilities at this  
8 site, and the Navy attempted to go down and clean  
9 out what they could, but they encountered a number  
10 of subsurface obstructions, and they just couldn't  
11 get it all.

12                   In commenting on their closure  
13 certification reports that the Navy wrote, DTSC  
14 noted that there was some residual contamination  
15 and actually suggested that the SWMUs be closed  
16 with what is known as "waste in place." And this  
17 is a formal procedure under RCRA that allows a  
18 closure of a facility and basically involves  
19 covering it up or capping it to prevent  
20 infiltration from causing the soils to continue to  
21 be a problem for groundwater.

22                   So while some of this work was ongoing,  
23 the Navy conducted a soil vapor extraction removal  
24 action in 1996, and this was to remove volatile  
25 organic compounds which were predominantly



1 chlorinated solvents in the soils, basically sucked  
2 the vapor out of the ground and cleaned up the  
3 soils. So they did that in and around these  
4 surface impoundments, removed quite a bit of soil  
5 vapor.

6                   Now, a little bit on the site  
7 information. As I said, it's in the center of the  
8 site. It's located near an aircraft runway. The  
9 majority of the OU is paved. There's been no  
10 reported use of the site by any special-status  
11 animal species that would warrant protective  
12 measures.

13                   The Regional Water Quality Board has  
14 designated the groundwater underneath NAS North  
15 Island as non-beneficial in use, which essentially  
16 means that it wouldn't be expected that it would be  
17 potable for use as a drinking water supply.

18                   Contaminants in the soil include what I  
19 call these volatile organic compounds, petroleum  
20 hydrocarbons and solvents, and some smaller amounts  
21 of semivolatile organics and metals, PCBs.

22                   At OU 11 groundwater is present as a  
23 shallow aquifer underneath the site, and it ranges  
24 from fresh to saline in nature and it flows north,  
25 northwest in a fairly low rate.

1                   This slide here shows the direction of  
2 groundwater flow at the site. Those arrows are  
3 basically showing the direction in which the  
4 groundwater is going. It's moving fairly slowly  
5 toward the northwest.

6                   The groundwater is contaminated with  
7 these chlorinated volatile organics. In prior  
8 studies in site characterizations the shallow  
9 groundwater was of some concern because of the  
10 potential that these contaminants could volatilize  
11 from the groundwater and affect industrial workers  
12 at the site. The groundwater in the deeper  
13 aquifers contains a lot of salts and total  
14 dissolved solids, what we call, and it's really --  
15 there's no means of exposure to the public.

16                  This figure is basically a map of the  
17 volatile organic compounds, that plume, as it was  
18 delineated in an earlier investigation in 1992. So  
19 you can see it extends basically down the gradient  
20 of the groundwater flow direction off the main part  
21 of the facility.

22                  And eight years later -- the plume has  
23 been monitored for a series of about eight years,  
24 and eight years later the plume looks approximately  
25 the same in size. Generally it's not thought to be

1 really going anywhere, which is important.

2                   As I said, three presumed former  
3 sources of the contamination of the groundwater  
4 exists: the sludge beds, oily waste sludge beds,  
5 and the concrete lined basins.

6                   As I said, nine years of groundwater  
7 monitoring occurred at this site and have shown  
8 that this VOC plume is relatively stable over time.

9           MS. MARRON: Could I ask a question?

10          MR. FRENCH: Sure.

11          MS. MARRON: Now, if I recall correctly,  
12 contamination from Site 9, I think, had started to  
13 reach the bay a couple of years ago.

14          MR. COLLINS: Right.

15          MS. MARRON: And now that you've stopped  
16 treating the VOCs at Site 11, that plume that has  
17 remained stable, isn't that going to start moving  
18 again? So it's going to start heading to the bay;  
19 right? Because that's what's going northwest, so  
20 it's going towards the bay.

21                   How long will it take it to reach the  
22 bay?

23          MR. COLLINS: It's estimated to be well over  
24 a hundred years, possibly closer to 150 years.

25          MR. FRENCH: And to further clarify your

1 question, you had indicated that the or stated that  
2 the plume has been treated. Actually, what was  
3 treated was the soils. The soils overlying the  
4 groundwater were treated with soil vapor extraction  
5 to remove vapors from the groundwater. And one of  
6 the reasons to do an action like that is to remove  
7 contamination from the soil so it won't serve as a  
8 continuing source for the underlying groundwater.  
9 There's never been any groundwater treatment at  
10 OU 11 per se.

11 And as Bill said, the predicted models  
12 that have been used indicate that it might be a  
13 hundred years before it reached the bay. From a  
14 more practical perspective, nine years of  
15 monitoring have shown that it's relatively stable.

16 MS. MARRON: Okay.

17 MR. FRENCH: In the groundwater there's  
18 evidence of what we call anaerobic biodegradation.  
19 It's a process that -- these volatile organic  
20 compounds have chlorine additives in them, and some  
21 of the parent compounds have like four chlorine  
22 atoms. And the process of biodegradation,  
23 indigenous microbes in the aquifer, basically go to  
24 work on these solvents and they can start stripping  
25 off the chlorine atoms, and if they're successful

1 in going all the way, they convert the solvents to  
2 harmless byproducts such as ethene gas and carbon  
3 dioxide.

4                   So we do see evidence of that ongoing.  
5 This is something that scientists look for in a  
6 plume in evaluating whether natural processes are  
7 capable of acting to degrade the plume.

8                   So the remedial action objectives for  
9 the FS are to protect the water quality of San  
10 Diego Bay, protect the health of the personnel at  
11 the facility or for whom could be visiting, and the  
12 chief -- the necessary measures under the state  
13 RCRA regulations to close the site.

14                   For soil, given that the DTSC suggested  
15 that closure with the waste in place be looked at  
16 here, that sort of focused us into measures that  
17 would achieve this RCRA closure. And, again, I  
18 said the closure with waste in place involves  
19 putting some sort of cover or cap on top of the  
20 contaminated soil.

21                   So that focused us pretty well to a  
22 limited number of alternatives for the soil. Three  
23 alternatives: no action, which is required under  
24 the National Contingency Plan as a baseline for  
25 what the other alternatives we're looking at; an

1 alternative that would involve limited site  
2 improvements, backfilling and paving; and then an  
3 alternative which involves a little more involved  
4 cap. And both of these involved continuing  
5 institutional controls to protect human health and  
6 the environment.

7                   So the Alternative S2, Site  
8 Improvements/Institutional Controls, would involve  
9 removing of concrete and debris from some of these  
10 surface impoundments, filling of the basins and  
11 ponds with clean soil; blacktopping of the areas;  
12 and then there are various institutional controls  
13 to maintain restricted access.

14                   And this slide here shows in the  
15 cross-hatch areas under this alternative the  
16 principal sources of groundwater contamination  
17 being the basins would be backfilled, concrete  
18 removed from those that have a concrete liner, and  
19 paved.

20                   Alternative No. 3 takes things a step  
21 farther and would involve a more extensive  
22 engineered cap. It would also in common with  
23 Alternative 2 involve filling of the basins and  
24 ponds up to the existing grade, and then placement  
25 of an engineered cap over a large portion of the

1 facility, and the institutional controls.

2                   And we developed a concept for a  
3 multilayer cap over the process of about five  
4 months negotiating with specialists from the  
5 Department of Toxic Substances. It involves  
6 several features, but it would go on top of the  
7 backfilled material in the basins and other  
8 portions of the facility. It incorporates what we  
9 call a geosynthetic clay liner, which is a very low  
10 permeability engineered fabric that's made out of  
11 Bentonite, and then a couple of other layers, and  
12 would involve a program to monitor the amount of  
13 water, if any, that went through the cap.

14                   The areas evaluated for this cap are  
15 somewhat larger in extent than the previous  
16 alternative and also include a good part of the  
17 yard around the facility where some of the other  
18 piping is and some of the other SWMUs that have  
19 been since removed.

20                   For groundwater several alternatives  
21 were evaluated. No action, again, as required by  
22 the National Contingency Plan.

23                   Monitored natural attenuation, GW-2,  
24 involves basically just what's been done at the  
25 site for the last eight years which is monitoring

1 the plume for various parameters to track the  
2 biodegradation processes, verify that it's not  
3 moving substantially; and then we've also provided  
4 an alternative, which is a little more aggressive,  
5 and involves a process to try and enhance the  
6 bioremediation processes -- give the bugs some more  
7 food and try to accelerate the remediation of the  
8 plume.

9               So the monitored natural attenuation,  
10 the Navy has been monitoring the plume under a  
11 permit issued by the DTSC under RCRA, and it's  
12 called an Evaluation Monitoring Program. It's been  
13 ongoing now for eight years in one form or the  
14 other, and under this alternative that would  
15 continue. However, there were some negotiations to  
16 improve the coverage of the monitoring wells around  
17 the site with DTSC and geologists and  
18 hydrogeologists that would involve replacement of  
19 certain wells to get better coverage of the plume  
20 and install some more deep wells. And this would  
21 involve long-term monitoring, periodic reviews  
22 every five years to evaluate whether this is  
23 continuing to work and the plume is not migrating.

24               It's a fairly -- it's become an  
25 increasingly utilized remedy for these plumes where



1 there's a limited chance for people to be exposed,  
2 where there's a limited chance for surface water or  
3 other areas to be impacted where they're relatively  
4 isolated.

5                   And this picture shows sort of the  
6 scheme for the replacement and reinstallation of  
7 the wells. On your figures in the handouts there's  
8 a key or a legend that shows which wells would be  
9 replaced, which deep wells would be installed.  
10 And, as I said, that was arrived at through  
11 extensive discussions and negotiations with the  
12 scientists at DTSC.

13                   The third alternative for groundwater,  
14 this enhanced anaerobic bioremediation, would  
15 employ an innovative technology to try to enhance  
16 the existing natural biodegradation processes that  
17 are ongoing in this plume. So it would attempt to  
18 stimulate the microbes, the bugs, that are down in  
19 the ground working to degrade these solvents  
20 already -- a "feed the bugs" strategy, as it were,  
21 in its simplest state -- and involves injection of  
22 what we call a carbon source.

23                   Sodium lactate is an environmentally  
24 benign substance that's used in the food  
25 preservative and processing industries, and it

1 basically is a -- it has natural carbon in it which  
2 the microbes use for metabolic processes. It  
3 basically helps them to -- it stimulates the  
4 bioactivity. It's a fairly complicated biological  
5 reaction, but this alternative would attempt to go  
6 to the areas that had the highest contamination  
7 right under those basins where there's sort of  
8 still some high levels of contaminants, and try to  
9 degrade those into harmless end products and  
10 therefore accelerate the remediation process at the  
11 site.

12               As I say, this sodium lactate, there's  
13 been several pilot tests the Navy's conducted at  
14 other sites in Southern California. It also has  
15 been used full scale at the Idaho National  
16 Environmental & Engineering Laboratory. We hooked  
17 up with the scientists up at INEEL who had actually  
18 negotiated the use of this technology with the  
19 USEPA into a ROD amendment for a very large plume  
20 up there, and it really was very successful up  
21 there in completely converting some of these  
22 solvents to harmless byproducts.

23               So we've been doing a lot of talking  
24 with them about this, and we think it has some  
25 potential at OU 11.

1                   It would be a very simple strategy of  
2 just injecting this benign substance into three  
3 existing wells on-site where there's contamination  
4 immediately underneath the areas. It would only  
5 last for a period of six to nine months, which is  
6 about the time frame that we would expect for some  
7 sort of reaction to take place.

8                   And then the alternative would include  
9 all of the elements of Alternative 2, which  
10 prolongs monitoring to track the natural processes  
11 in the plume.

12                   So we're at the stage where these  
13 alternatives were compared and evaluated under  
14 CERCLA criteria. The Navy is currently reviewing  
15 our assessment of this, the document, and we'll be  
16 receiving their comments next week we're told,  
17 revising the FS and then issuing that to the  
18 agencies and the public, hopefully by the end of  
19 calendar year 2001.

20                   There'll be no recommendation regarding  
21 a preferred alternative in this document. A  
22 subsequent proposed plan would be put out for  
23 public review and participation and would document  
24 the Navy's preferred alternative for this site.

25                   So as I say, what's next? Hopefully,

1 turn the FS around to the agencies and the public  
2 by the end of the year, and then hopefully move to  
3 a proposed plan for this site in 2001.

4 And that concludes my presentation.  
5 I'll take any questions that anyone has at this  
6 time.

7 MR. GEILENFELDT: In lieu of the fact, as I  
8 understand it, this is the same area that the Navy  
9 currently uses to store spent nuclear materials; is  
10 that correct.

11 MR. COLLINS: Not correct.

12 MR. GEILENFELDT: I'm sorry. I was thinking  
13 this was it.

14 MS. MARRON: If the Navy went with the  
15 Remedial Alternative 3 and they did the injection  
16 of the sodium lactate, they did it for six to nine  
17 months in the on-site locations, if it were  
18 successful, would they continue to do it or would  
19 they stop after the one treatment was over or one  
20 alternative was done?

21 MR. FRENCH: I think the intent is to just  
22 knock out the source areas which are immediately  
23 underlying those basins and let the rest of the  
24 plume attenuate naturally. They don't want to  
25 scale this process up and inject so much liquid

1 across other portions of the site that they start  
2 spreading things around. They want to really focus  
3 it to try to take out these hot spots.

4 And they also want to move along with  
5 the soil remedy or the capping of the soils, and  
6 there are scheduling issues there where because of  
7 this on-site treatment activity, it wouldn't be  
8 feasible to go ahead and cap the soils until they  
9 were really done with that.

10 So they really want to take out these  
11 hot spots and then cap the site is really the  
12 intent here.

13 Correct me if I'm wrong, Bill.

14 MR. COLLINS: That's correct. It's a  
15 one-time deal to -- truthfully. In order to walk  
16 away from this site, as something they call a clean  
17 closed site, you can't leave any contamination  
18 behind, and that's pretty much impossible out here.  
19 And there's no benefit to spend years cleaning up  
20 the groundwater when it will still remain dirty.

21 It's going to be -- after we treat the  
22 hot spots, it will still be, I'm sure, well over a  
23 hundred years while these chemicals naturally  
24 deteriorate and become harmless, but we can speed  
25 it up by doing something like this treatment.

1           MS. MARRON: So the sodium lactate, you said  
2 that if you did it more than once, it would kind  
3 of -- you'd be putting -- it's a liquid, obviously.  
4 You're putting in more liquid.

5           MR. COLLINS: It's food, yes.

6           MS. MARRON: So is that going to increase  
7 the rate at which the groundwater is moving towards  
8 the bay?

9           MR. COLLINS: Not appreciably.

10                   As you can see from the drawing, this  
11 has been very static since we quit putting waste in  
12 the ponds. It's just not going anywhere. And in  
13 some cases, even though you see those contour lines  
14 still out there, the degree of contamination that's  
15 in those areas is reducing already.

16                   So if we used a different contour  
17 system, you would see that the plume is shrinking  
18 in many places.

19           MR. CLARK: Back on Figure 2-11, I was just  
20 curious about the blue lines with figures on there  
21 from 6.6 going on the other side to 5.6.

22                   What do those represent?

23           MR. FRENCH: My audiovisual just went.

24           MR. COLLINS: It's the contour lines.

25           MR. FRENCH: Those are the contour lines,

1 the equal elevation lines of the groundwater, like  
2 a contour map of the groundwater.

3 MR. CLARK: Okay.

4 MR. FRENCH: The black arrows should be  
5 perpendicular to those equal elevation lines.

6 MR. CLARK: So that's actually the  
7 elevation -- actual, physical elevation.

8 MR. FRENCH: Yes.

9 DR. MARSHALL: I have sort of a strange  
10 thought on this.

11 We are so sensitive these days about so  
12 many things in the air, bodies of ground all over  
13 the place, on Slide 23 you said "protect the human  
14 health of Naval Air Station North Island personnel.

15 I think it would be well for PR or  
16 whatever you want to say to put in there "and  
17 people in Coronado" because this is a Coronado  
18 board. Everybody on this island is worried about  
19 getting stung, blown, burned, slopped on and  
20 everything else. I'd add that on there just  
21 because I think it means that this report is  
22 thinking about Coronado also, not just the Navy.

23 MR. FRENCH: Okay.

24 DR. MARSHALL: If it's a true statement. I  
25 have to add that.

1           MR. VAN ROOY: Is there any evidence that  
2 the current operating industrial waste treatment  
3 facility, we're not getting any additional  
4 contamination from that source, are we?

5           MR. FRENCH: I have no evidence of that.

6           MR. COLLINS: I don't think we have a record  
7 of any spill out there that lasted more than an  
8 hour if they've had any at all.

9                     Under the permit they have to quickly  
10 clean up anything that they might spill, and they  
11 don't have any pipeline leaks out there anymore,  
12 and the current plant is not designed to have  
13 liquid exposed to the soil at any time. There's  
14 double wall containment on everything, so it's a  
15 very nice operation now.

16           MR. FRENCH: Any other questions? All  
17 right. Thank you.

18           MR. LOCKE: Thank you, Jim. Very good  
19 presentation.

20                     Our next item is Site 9 Removal Update  
21 from Bill Collins, and I think Merry Coons is going  
22 to be helping.

23           MR. COLLINS: She's going to help me.

24           MR. LOCKE: She's the lead engineer on this  
25 project for IT Corporation.



1           MR. COLLINS: This actually will be part of  
2 the continuing saga of what's going on at Site 9  
3 with our remediation of the site using soil vapor  
4 extraction and free product recovery, and we're  
5 heading into something that would be called by some  
6 a new technology. That's where we use steam to  
7 move it and will allow us to more rapidly collect  
8 the contamination.

9           I think a lot of you are aware of the  
10 pilot study we did out there a year or so ago on a  
11 small portion of the site that was very effective.  
12 In fact, it's so effective that EPA has been  
13 interested in it, and we've actually given them a  
14 presentation to show around the country. And, in  
15 fact, about three weeks ago I had a call from  
16 another contractor in New York State, and the State  
17 of New York is going to use this on their site. In  
18 fact, they should be running now. They were going  
19 to do a pilot study at least starting in November.

20           It's a little different. They have  
21 fractured bedrock, which is much more difficult to  
22 deal with than this, but I don't believe they have  
23 the level of contamination that we have. I believe  
24 it's on an Air Force base, and wouldn't you know  
25 it, they wouldn't tell me where other than near

1 Rochester. But this technology has the potential  
2 to work wonders.

3           The pre-site history of North Island --  
4 I think this is on another slide. This is a list  
5 of the things we're going to talk about. Full  
6 scale system, the bench test we did for water  
7 treatment. Some of these might go a little  
8 quickly. Our discharge options, and we do have  
9 some new news there, and the next steps.

10           Everybody remembers where Site 9 is. I  
11 think many of you have been on the tour. It's out  
12 towards the Weapons pier in the southwest corner of  
13 the island -- former island.

14           The area was the sight of former  
15 disposal pits. In fact, these pits were in  
16 operation and caused so much problem with -- you  
17 see the fiery marsh here? That was the problem.  
18 It was unsegregated waste dumped into this huge  
19 open area, and not even really a good pit. It  
20 would catch fire. It caused a lot of trouble for  
21 the fire department on North Island for the  
22 military, so they built the IWTP at Site 11.

23           They learned some things but not  
24 everything when they went to Site 11. So we used  
25 unlined pits here. They did use lined pits

1 somewhat.

2                   Our area right now is pretty much  
3 currently unoccupied. It would be classed as  
4 almost boring out there in some areas.

5                   In the past we have run our soil vapor  
6 extraction process out there, and we pulled off  
7 80,000 pounds of mixed VOCs. That included  
8 chlorinated solvents and the lighter petroleum  
9 products, gasoline being one of them, things like  
10 that.

11                   In September '99 we set up a pilot  
12 scale system because we couldn't get the whole site  
13 clean. We kept having areas that were rebounding  
14 with contamination. We'd get it pulled down and a  
15 few months later it would rebound. So we had to  
16 figure out what was wrong. We determined actually  
17 that we had a plume of petroleum products down  
18 there that in itself was contaminated with  
19 chlorinated solvents. And as we would pull it  
20 down, it would provide an opportunity for these  
21 chlorinated solvents to come out of the fuel back  
22 up into the soil and recontaminate it, and then  
23 we'd be left where we were before.

24                   So we decided to do something, and  
25 that's when we tried the steam. And the steam was

1 used to aggressively lighten, you could say, the  
2 oils, the petroleum products down there, and turn  
3 them from something that I always say is more like  
4 a cold syrup, pancake syrup that you've had in the  
5 frig and comparing it to after a minute in the  
6 microwave when you can pour it real easily. So we  
7 get the same kind of effect out there.

8                   This allows it to flow to the wells  
9 where we have pumps and we can recover the free  
10 product. It also, by adding heat, energizes the  
11 VOCs in there and they tend to off gas then and  
12 come out into the soil where we can capture them.

13                   We can say we pulled off another 28,600  
14 pounds of VOCs again. So in May of last year we  
15 started -- we were doing product skimming only.  
16 Actually, what we moved in total is 177,000 pounds.

17                   What we've moved to now is we have  
18 resumed construction this fall. We're setting up a  
19 new full-scale system. I took a tour of the site  
20 last week, and it's really blossoming out. A lot  
21 of wells are in there, a lot of pipeline. It looks  
22 more like a small refinery. A little different  
23 than it did last time if you were on the tour a few  
24 years ago and got to see the soil vapor extraction.

25                   But we expect to be automatically

1 operating the site the end of November, around that  
2 time. We've recovered 600 gallons of total fluids  
3 right now. Now, that isn't a lot, but we were kind  
4 of operating on manual and we're still building the  
5 system. We're still attempting to get stuff out of  
6 the ground, though, while we're doing that.

7                   Around December and January, somewhere  
8 in there, we will put steam to the ground and we'll  
9 start performing a human type miracle.

10                   Treatment system modifications. Well,  
11 we've had to rebuild the plant. That's the simple  
12 way of looking at it. Our carbon system had to be  
13 changed, our boiler had to be changed. It used to  
14 meet the code, but it doesn't meet the new code.  
15 We had to change it out.

16                   Actually, we're adding more carbon.  
17 We're actually going to treat a lot more VOCs over  
18 the near future. We added a new low pressure  
19 Lo-NOx boiler steam super heater to help us  
20 maintain the low pressure out there, and added a  
21 new steam heater. All these things are done to  
22 beneficiate the system to make it work more  
23 efficiently.

24                   Now, as far as the water treatment, we  
25 did a little bench test with a company from Canada

1 that was given the task of trying to figure out how  
2 to clean up that water, how to make it so clean we  
3 could either dispose of it to the bay -- which is  
4 actually legal under CERCLA. We don't need a  
5 permit for it, but we do have to meet certain  
6 standards, of course -- or to discharge it to the  
7 ground, which again is legal, or if we wanted to,  
8 continue to discharge it to the sanitary sewer  
9 lines and they'll run it all the way out to Point  
10 Loma.

11                   So we went through this little bench  
12 test with the company. They've come up with a plan  
13 that they think will do the job for us, and we've  
14 sent our plans off to DTSC to review. They've  
15 given us some comments on that, and we've taken  
16 that into strong consideration, but this will allow  
17 us actually to put the water back at the site.

18                   When we quickly pretreat our water,  
19 they'll do some anaerobic biological treatment that  
20 takes care of a particular type of chlorinated  
21 solvent. Then we'll do aero, and everybody's aware  
22 of working out at the gym when you're doing aerobic  
23 exercises and anaerobic exercises. It's the same  
24 kind of process, and it probably makes these bugs  
25 feel the same.

1                   Then we'll get in there with our ozone,  
2 and what's the "P"?

3                   MS. COONS: Peroxide.

4                   MR. COLLINS: Advanced oxidation. That  
5 destroys additional chemicals. And then we'll have  
6 activated carbon polishing on the water, and that  
7 will strip more things out just as the carbon  
8 strips things out in soil vapor extraction.

9                   These little carbon particles have a  
10 terrific surface area. I don't know what the  
11 average particle of the surface is. I liken it to  
12 the surface on a human being. It's more than you  
13 can believe.

14                   Currently we discharged -- actually,  
15 currently we've stopped discharging to anybody --  
16 to any particular system, and we're storing the  
17 water. What we want to do is mitigate some volume  
18 of water that we send to the treatment plant. The  
19 Navy does pay to have that treated.

20                   So we're going to conduct two pilot  
21 studies out there, and one of them will involve  
22 infiltration. The treated wastewater will be  
23 transported to an area where there's buried slotted  
24 pipe. Water will be discharged down to the pipe  
25 and go down to the groundwater level, and then run

1 out along this long slotted pipe and then slowly  
2 drip back into the groundwater. And our water will  
3 be much, much cleaner than what's already there.  
4 So it won't be as clean as tap water, but it will  
5 be clean. And that's what we'll do.

6                   And in the other area we're going to do  
7 evapotranspiration where we apply the water to the  
8 ground surface, it soaks in, and these special  
9 plants that are there take up all the water. I  
10 believe we're using poplars of some sort, and  
11 they're thirsty plants. So they drink a lot. They  
12 pull up the water. The contaminants are trapped in  
13 the plants. The water is discharged to the air.  
14 It just evaporates.

15           MR. CLARK: Could I ask a quick question,  
16 Bill?

17           MR. COLLINS: Yes.

18           MR. CLARK: Why couldn't you convert this  
19 water into steam that you're forcing into the  
20 ground to bring up this other stuff?

21           MR. COLLINS: Turn it into steam. Well, we  
22 are --

23           MS. COONS: It's a very good idea, and we  
24 considered it, but we'd have to treat the water so  
25 much more in order to get it at a certain quality



1 to go through and not muck up our equipment. It's  
2 not that it has to be a certain quality to  
3 reinject, but it's just an engineering thing for  
4 the equipment up top.

5 MR. CLARK: Thank you.

6 MS. FIELD: Can I ask another quick  
7 question?

8 MR. COLLINS: Sure.

9 MS. FIELD: The stuff that is going into the  
10 plants that eventually gets respired and  
11 evaporated, is that stuff sufficiently clean that  
12 when we breathe it, that -- it's going to be safe  
13 to breathe?

14 MR. COLLINS: Yes. It will be safe to  
15 breathe.

16 Now, one thing I didn't mention is that  
17 periodically -- and it depends on the type of plant  
18 that you use. If you use annuals, obviously, you  
19 have to harvest them every year. Poplars aren't  
20 annuals, and so they should be able to take up  
21 waste for many years, I would hope.

22 This is the area where the fiery marsh  
23 was. This is the area that we're doing our steam  
24 treatment. We're going to pull that material out.  
25 We have one area -- here's our irrigation yard.

1 We've moved it. And then up in this area we're  
2 going to have -- that's where we'll have our own  
3 infiltration area. We had also considered one down  
4 here -- actually, right here. We're also looking  
5 at one up in that area, and there are benefits to  
6 both and probably disadvantages to both.

7                   Our next steps at the site. We'll  
8 start up our soil vapor extraction and steam  
9 injection in the December-January time frame;  
10 construct our infiltration and irrigation plots  
11 January-February; complete the construction of the  
12 water treatment system. That will happen some time  
13 in the spring. We still have to move all that  
14 equipment in and build it, and then have all the  
15 components on line in the spring of next year.

16                   And probably somewhere around in there  
17 we'll arrange for a RAB tour for those people that  
18 want to see what's going on at all the sites and  
19 for those that are just interested in this one, if  
20 they want.

21                   Now, I think everybody knows that there  
22 were some operational problems with all the  
23 military bases in September and so we lost a few  
24 weeks of time when we didn't have access to our  
25 contractors and access to the site to continue the

1 construction. So we've been going as fast and as  
2 safe as we can at this site since the point where  
3 we were allowed to return to build the rest of the  
4 system, so it's going pretty good.

5 Any other questions? Thanks. Thanks,  
6 Merry.

7 I have the next one, too.

8 MR. LOCKE: Thank you, Bill.

9 Bill's also going to do a summary of  
10 the funding history for the cleanup effort at North  
11 Island and projected funding for the other years.

12 MR. COLLINS: Did everybody get a copy of  
13 the budget?

14 What I've prepared for you tonight is  
15 something that we used to do for the previous RABs  
16 when Captain Mello was here, if you remember  
17 Captain Mello, and for a few of the other RABs also  
18 to let you know where we spend our money.

19 Generally at North Island we've gotten  
20 close to \$8-1/2 million a year for the last several  
21 years, and it's always been enough to keep the  
22 program rolling. We could always use more, but  
23 it's enough to keep the program rolling and to  
24 address the investigations and cleanups at many of  
25 the sites on North Island.

1                   So what I thought I'd show you is what  
2 we spent this past fiscal year starting from  
3 October in 2000 to the end of September this year.  
4 We spent most of our money at the primary IR sites,  
5 Site 1, being a big one. That's where the CDF is,  
6 the confined disposal facility. That's where the  
7 STENNIS is usually tied up, investigating that  
8 area.

9                   We spent some money monitoring our  
10 landfills. You can see that for Site 2 and again  
11 for Site 5.

12                  Site 4 we monitored the groundwater.  
13 These are kind of low-key things. There isn't much  
14 to do and much to report, but it's necessary just  
15 to check on what contamination might be there and  
16 if there are any problems coming up so we can  
17 address it more actively if we need to.

18                  At sites like Site 9 we've been  
19 actively involved in doing a Remedial Investigation  
20 to address all of the contamination that's out  
21 there and give a nice picture of what's there so  
22 that we can do a Feasibility Study. Just like the  
23 one that Jim is doing for Site 11, this is another  
24 one we're doing for Site 9.

25                  At Site 9 we have more options in that

1 we're allowed to do more. At Site 11 it's a  
2 different situation because it was a permitted  
3 site. It's regulated, so it has its own set of  
4 rules that require things to be done. This site  
5 does not, and therefore there's a lot more freedom  
6 and options, and there are other -- unfortunately,  
7 there are also a lot of other controls, too, that  
8 we have to look at, but there's in a way much more  
9 flexibility. We've been working on that. We've  
10 been doing some ecological risk out there.

11                   Site 10 we haven't been doing too much.

12                   Site 11 we're big on the Feasibility  
13 Study.

14                   We have other work. For those people  
15 that know about SWMU 80, the industrial waste  
16 pipelines, we've had presentations on that. We're  
17 getting ready to do a big investigation on that.  
18 That has miles of pipelines going all over the  
19 northeast part of the base that we have to check  
20 out.

21                   As everybody's aware, we've been trying  
22 to clean up the fuel at the fuel farm, and we have  
23 been quite successful out there. We've done some  
24 other little jobs cleaning up abandoned pipelines  
25 and some small tanks.

1                   You can see where the biggest amount of  
2 money's at here at Site 9. We've been doing the  
3 Remedial Investigation, but at Site 9 performing  
4 the Removal Action to clean these chemicals out of  
5 the ground, these contaminants, it takes a lot of  
6 money. Unfortunately, it also takes a lot of time.  
7 So we've had to spend a lot of money there, and  
8 we've spent a lot of money on work plans for SWMU  
9 80.

10                   We're conducting a pilot study over at  
11 Operable Unit 19, and the strange thing is -- well,  
12 maybe it's not strange on military bases -- the  
13 little plume at OU 19 that we're cleaning up is  
14 very similar to the one that we're cleaning up at  
15 Site 9. In fact, we're going to do another small  
16 steam pilot study right there at OU 19 to see if we  
17 can enhance that. So far we're only doing free  
18 product recovery, and that's working out pretty  
19 good, too, but hopefully in the spring of next year  
20 we'll put steam to it and do much better.

21                   Part of our North Island job is taking  
22 care of places like NAB Coronado, which is  
23 something that this RAB also has expressed concern  
24 over, and the last year we didn't put any fresh  
25 money into that pot. We had enough money left over

1 from previous years, so we just spent that.

2               One of the other bases we take care of  
3 is SERE Camp. It's up in the mountains in Warner  
4 Springs. That's where pilots train, Seals train --  
5 a lot of people train up there, and we've been  
6 monitoring the landfill up there.

7               Now, last year we spent our money so  
8 well -- either that or we've learned how to cry at  
9 the right time -- we were actually able to get more  
10 money than we were entitled to. So we did some  
11 housekeeping around one of our SWMUs -- actually,  
12 SWMU 132 is where the housekeeping took place --  
13 and we cleaned up somebody's old sandblast grit.  
14 Otherwise, there was no problem at the site. So we  
15 have some people who would say we conned them out  
16 of this money, but we got the money. That's all  
17 that counts.

18              SERE Camp, we went in and we did some  
19 landfill maintenance, restored the landfill,  
20 putting in a new cover, making it much nicer so the  
21 Water Board likes what we're doing.

22              Down at the Navy Communications Station  
23 at IB we installed some groundwater monitoring  
24 wells, and actually we were able to get the Water  
25 Board to close a couple of the tanks down there.

1 Spend this \$44,000 down there for putting in wells,  
2 taking samples, writing a short report, and proving  
3 to them that this site is clean enough to close and  
4 then we don't have to take care of it in the  
5 future. We don't have to monitor it. It's done.  
6 So that was good.

7                   And then we were told that there was  
8 some money left over actually in the Navy coffers  
9 from the previous fiscal year. Normally, we don't  
10 get a chance to get this money, but there was a  
11 chance and we asked them for \$300,000 to put toward  
12 the fuel farm, and we gave them a very good reason  
13 why we should have it, and they gave it to us. So  
14 as you can see, we got almost a half a million  
15 dollars more than we would have normally.

16                   The total for the past fiscal year was  
17 a little over \$8,800,000.

18                   Now, the interesting thing is what are  
19 we getting this year? Unfortunately, the story  
20 isn't quite as good because of some cutbacks in  
21 Washington, D.C. that happened before September  
22 11th. We knew we were going to lose approximately  
23 12 percent of our budget. It's going to other  
24 bases to close them down, and after a couple of  
25 years on the dry side, North Island's budget will



1 then start to grow and get much bigger for several  
2 years.

3                   So what we're going to do next year is  
4 continue our work at Site 1. We're doing a  
5 background study for groundwater and looking into  
6 the risk and several things like that. I've broken  
7 out a line for analytical services because we  
8 obtained that from another agency and our main  
9 contractor that's working on Site 1 then uses that  
10 data. It's just the way we've been doing this.

11                   Site 2 we'll be back doing our landfill  
12 monitoring. The same will be true at Site 5. That  
13 will never go away.

14                   Site 4, more groundwater monitoring.

15                   Site 5 we hope to start our Feasibility  
16 Study. That will take quite a while. Site 5, we  
17 hope to finish our Removal Action with chemical  
18 oxidation. That should be finished in early  
19 spring.

20                   Site 9 we'll continue with our eco  
21 risk, and we also have to do some human health risk  
22 assessments out there, too, and that's included in  
23 the next line.

24                   Then our site management plan that  
25 we'll update, and we'll be back in there where

1 there's a line for disposing of investigation  
2 derived wastes. We do that through PWC. They have  
3 a larger contract set up with another government  
4 agency that will handle that. That works great for  
5 us.

6                   You can see we're putting over a  
7 million dollars again into the removal action  
8 that's going on at Site 9. We should tell you that  
9 at Site 9 I think you should expect to see millions  
10 being poured in there every year for many years.  
11 So it's not one of these sites that will slowly  
12 have a reduction in expenditures or I should say  
13 have a rapid reduction.

14                   We give a lot of tours out at North  
15 Island, believe it or not, to scientific groups and  
16 regulators, and so I put aside some money for that  
17 so we can rent the buses from the Navy. In fact,  
18 when we go on the RAB tour, that's what we pay for.  
19 That's how we do it.

20                   We've got some more for Site 9 for "RAB  
21 Support." We actually have a contractor that works  
22 for us for this particular meeting -- setting up  
23 the chairs, the tables, sending out the agendas,  
24 typing up the minutes, doing the RAB transcript and  
25 all of that stuff. We do pay for that. Our region

1 is John's office who will be helping with that, so  
2 I've included that as an expenditure. We'll do the  
3 contracting; they'll provide us the money.

4               Site 11, we'll be finishing up our FS  
5 plus we'll be working on our RAP/ROD. RAP is a  
6 Remedial Action Plan. That's a state document.  
7 And a ROD is a Record of Decision. That's a  
8 federal document. They pretty much do the same  
9 thing, and that will allow us then to choose the  
10 final remedy for Site 11.

11              And then going into the next line, to  
12 do our remedial design. We'll also do the post  
13 closure permit application. The data that's in  
14 both of them is so closely intertwined, and  
15 actually some portions have to be exactly the same  
16 that we're going to take care of the whole thing.

17              And then hopefully, if things were to  
18 go fast, we would then have money to start our  
19 Remedial Action out there at Site 11. Sometimes  
20 the work doesn't go as fast as the calendar year,  
21 so jobs get delayed. There's a lot of stuff to  
22 review. Sometimes money gets cut out. Sometimes  
23 we're just not as fast as we thought we should be.

24              We've got more money going to SWMU 80  
25 for work plans, and hopefully we'll be out in the

1 field starting to do some work next year, too.

2 More money for the fuel farm. More  
3 money for the pilot study on OU 19 to get their  
4 free product out of the ground; and then, again,  
5 SERE Camp.

6 You can see from the total here --  
7 \$6,800,000 -- that we're about \$2 million short of  
8 where we were last year. Hopefully, toward the end  
9 of this year after we've gotten all of this  
10 obligated, we will run into the same situation we  
11 had last year, and we will find that some other  
12 Navy activities just can't spend their money as  
13 fast as they should, and we will step forward and  
14 volunteer to take it. We won't rob them, but we'll  
15 take it. And then we'll get to do some more work  
16 for North Island and Coronado.

17 It's always been -- at least for the  
18 past several years we've always gotten more than we  
19 should have here or at least in the eyes of some  
20 people.

21 Any questions?

22 MR. GEILENFELDT: This Site 5 money that's  
23 set up, Bill, is that this year's budget or last  
24 year's budget?

25 MR. COLLINS: This one is this year's

1 budget. October 1 of this year till September 30th  
2 of next year.

3 MR. GEILENFELDT: Things that need to be  
4 done is going to be done on this year's budget.

5 MR. COLLINS: Yes. It should be. Now,  
6 hopefully, this is enough money to do everything we  
7 need to for this year.

8 MR. GEILENFELDT: Second question in general  
9 terms, is any of this ongoing activity effecting  
10 our servicemen on their current activities at the  
11 national level?

12 MR. COLLINS: No.

13 MR. GEILENFELDT: Does any of this enter  
14 into this at all?

15 MR. COLLINS: No. Generally if there was a  
16 problem, it would be the other way around. They  
17 would tell us slash a million or slash two million  
18 off, and that's happened before.

19 And that's what would happen to us, and  
20 we'd have a smaller budget. And we would try to  
21 figure out how to take the residue of what's left  
22 after a cut and spread it out over the job and  
23 still do as much as we could. We might end up  
24 having to sacrifice a few sites and not do  
25 something, but unfortunately, people expect us to

1 do certain things. Regulators would still expect  
2 to get their reports whether or not you have as  
3 much money this year as last year, so we pretty  
4 much have to do it.

5 MR. GEILENFELDT: Thank you.

6 MR. VAN ROOY: Bill, the free product  
7 removal, the hundred thousand, is that the money we  
8 get from the Defense Energy Support Center or is  
9 that the Navy's share of it?

10 MR. COLLINS: That's the Navy's share.  
11 That's out of our current budget.

12 MR. VAN ROOY: We get another \$100,000 from  
13 Defense Energy Support Center, too.

14 MR. COLLINS: And Region is supposed to  
15 cough in some money, too.

16 You know, the great thing out at the  
17 fuel farm is that it's cleaning up very fast now.  
18 We're recovering less and less in the way of free  
19 product, and now we're going to look at some other  
20 methods to get the contamination out of the ground.  
21 So that site is going really nice.

22 Thanks.

23 MR. LOCKE: Thank you, bill.

24 Our next presentation is from Sullivan  
25 Consulting. Bill Ulmer works for Sullivan

1 Consulting and Steve Sullivan. This is for an  
2 Internet RAB portal. I'd like to call it a virtual  
3 RAB. It will be a place where people can go and  
4 look at our RAB, get involved with it and may want  
5 to become a member.

6                   One of the features of this is, as  
7 they'll tell you, is that people from outside  
8 Coronado will have easy access to what we're doing  
9 and may want to join the RAB even though they're  
10 not in the community.

11               MR. SULLIVAN: Just like John was saying,  
12 the RAB portal is really an extension of some of  
13 the other outreach activities that are already  
14 occurring within the RAB and kind of connecting  
15 with the community. And although currently there's  
16 some newsletters and other types of information, I  
17 think there's some of these folks that have an  
18 interest in Installation/Restoration activities  
19 throughout the region.

20                   What we've actually tried to do here --

21               DR. MARSHALL: Excuse me. Are those spares  
22 you've got there? Thank you. Sorry to interrupt  
23 you.

24               MR. SULLIVAN: So what we're really trying  
25 to do is really make this an easy kind of navigable

1 opportunity for folks who have an interest in  
2 learning more about a lot of the things that  
3 everybody spoke about prior to our presentation.

4               So really kind of look at this as kind  
5 of like a discovery channel opportunity for an  
6 Installation/Restoration program activity here  
7 within a region.

8               As you can see, it's fairly easy to  
9 look at, and there's not a whole lot of things  
10 going on there. We've got a fairly simple  
11 navigation bar. On the left you've got access to  
12 "Meeting Archives, Community Outreach, Case  
13 Studies" -- which I'll talk about a little bit  
14 more -- "Tools & Resources," and then the "IR  
15 Connection."

16              Again, a simple clarification of what  
17 the purpose of the RAB is for, what the Restoration  
18 Advisory Board is kind of all about.

19              Again, the reason why the decision was  
20 made to kind of make this happen is to really make  
21 it easy for folks out in the community to go to  
22 kind of a simple, kind of one source, one stop shop  
23 for information regarding the Restoration Advisory  
24 Board, and also to access a lot of the information  
25 that the folks did of the previous presentations.



1 A lot of that information will be also available  
2 here.

3 Bill mentioned possible tours in the  
4 future, and potentially there could be online  
5 virtual tours where people could click on it and  
6 maybe actually see a site tour that either they  
7 couldn't make it or they're interested in it but  
8 they just don't have the funds or time to make it  
9 to that event. So Bill's going to kind of guide us  
10 through and try to explain to you each one of these  
11 areas.

12 Meeting Archives, what we've done is  
13 we've brought kind of the most current archive or  
14 meeting minutes to each of these minutes, and what  
15 it does is it gives people access to the most  
16 recent ones, and then they can go ahead and delve  
17 into the deeper archive if they click on the "Click  
18 Here" button.

19 Right now this is strictly a Power  
20 Point presentation, so it's not dynamic. We can't  
21 click on it.

22 Let's go ahead and continue to move  
23 forward here, Bill.

24 You can see the "Fact Sheets, Public  
25 Notices, Photo Gallery." The photo gallery, of

1 course, will have different photos.

2                   For some of you folks that are sitting  
3 here in the audience, it's very easy to conjure up  
4 some of the things that these folks are talking  
5 about, and for some of you it may be very  
6 difficult. And so what's going to happen is you'll  
7 be able to -- for example, a steam extraction  
8 system, there's going to be a visual in here for  
9 you to look at so you can actually identify with  
10 what the technical folks are talking about and go  
11 "Okay. That makes sense. I understand how it  
12 works," and possibly associate diagrams and other  
13 information about the technology that's being used  
14 at that site.

15                   On the right is the -- part of this  
16 whole community outreach is to develop a  
17 two-direction flow of communication from the  
18 community and from the RAB. So the folks on my  
19 right, those web links, what we're going to do is  
20 negotiate and establish links at those universities  
21 or those organizations so the folks within those  
22 organizations or institutions will start accessing  
23 information at the RAB for research, interest, et  
24 cetera. So it's sort of extending the community  
25 dialogue on what's going on here.

1                   Case studies, we've actually taken --  
2 we've got 12 of the top case studies at North  
3 Island. We've got six at the Amphib Base. Again,  
4 just another opportunity, and what we're going to  
5 try to do is insert additional information into  
6 those case studies that already exist which would  
7 include pictures, diagrams, points of contact, when  
8 the program started, where it's at now, and what  
9 are kind of the future efforts that are going to be  
10 involved in each one of those areas.

11                  The forum, which is really what we're  
12 doing here. Some of the folks -- we've really kind  
13 of got a forum here and people are kind of  
14 developing a dialogue, and it's difficult to gather  
15 momentum when you have kind of a one-time shot  
16 every couple of months or every month. And what  
17 this will do is give you folks and other people in  
18 the community an opportunity to develop a steady  
19 dialogue on a specific piece of technology or  
20 something that's of interest to them because  
21 they're working on it or part of that activity.

22                  For example, if somebody tomorrow had  
23 additional questions for Jim but they're afraid to  
24 ask them here because they think they're silly or  
25 whatever, they could go ahead and develop that

1 forum dialogue with him online. Again, basically  
2 just put your name in there, put the subject in  
3 there, send the message to the person that's going  
4 to receive it. In this case it's soil and  
5 groundwater at Site 5. And then basically they can  
6 post a reply. This is just an example of what it  
7 may look like.

8                 Down in tools and resources, the key  
9 publications of why are we doing this anyway.  
10 Folks can go here and go "Okay. Here's initial RAB  
11 guidance, DoD policy statements, documents, et  
12 cetera" that really are kind of the driving force  
13 behind all of the activities that are occurring at  
14 each of the restoration sites.

15                Different tools, fact sheets, et cetera  
16 that can help the folks utilize the information to  
17 expand their knowledge on the different things that  
18 are happening at those installations.

19                The other part of this tools and  
20 resources is also a resource for folks that are  
21 actively involved in the technological aspects. So  
22 the contractors and other people that are  
23 involved -- for example, anybody within the Point A  
24 and Point B where the contract is let and all the  
25 way to where the work is being done, all of those

1 folks have an interest and have different interests  
2 and want to know about what's going on out there,  
3 so they can easily go to this site and click on,  
4 you know, "Hey, we want to see really what this  
5 contract is all about." They can click on it and  
6 they'll find out about the steam injection system  
7 or any other new technology that's being used by  
8 one of the contractors on the site. And, of  
9 course, a list of the contractors that are actively  
10 involved.

11                   And then finally the IR Connection.  
12 This is where -- we don't know that lady there.  
13 The IR Connection is actually going to be a place  
14 where we're going to hopefully select key people  
15 that have specific information or knowledge about  
16 different aspects of the Installation/Restoration  
17 program, and they kind of become the "online  
18 expert," so to speak. So let's just say it's these  
19 two folks over here -- maybe Jim is an expert on  
20 soil extraction and somebody else here in the room  
21 has an expertise in pumps that are related to the  
22 process. They're going to give a key word they'll  
23 be able to cue off of. So the person will actually  
24 put the question in there and it will cue off the  
25 key word. So if it's Jim and he said he's really

1 interested in getting all of the e-mails on soil  
2 extraction, he'll get those and he'll be able to  
3 respond.

4                   So hopefully we're going to get --  
5 everybody in this room tonight is a volunteer for  
6 that. What it's going to do is just help again get  
7 folks involved in responding to inquiries from the  
8 community about what's going on at the sites.

9                   And, of course, the old infamous search  
10 option where you can go ahead and enter in whatever  
11 you're looking for and it will hopefully bring up  
12 the information you're looking for.

13                   So that's it. Any questions? Are we  
14 missing something?

15                   MR. VAN ROOY: Would we advertise the  
16 availability of this like in the "Coronado Eagle"  
17 and "Journal"?

18                   MR. SULLIVAN: Absolutely. That was one of  
19 the suggestions that John had.

20                   The other thing I was going to add on  
21 to the other resources and opportunities at the  
22 site, you'll also be able to look at and view or  
23 there's actually going to be a link to the Navy  
24 Environmental Leadership Program site where you'll  
25 be able to learn about some of the other P2

1 technology, some of the other technology that's  
2 being utilized throughout the Navy and the region  
3 and possibly in connection with the IR site  
4 activities.

5 MS. FIELD: Is this a project that's unique  
6 to our RAB or are there similar portals that are  
7 going to be for all the RABs across the country  
8 that we could access and they could access us?

9 MR. SULLIVAN: That's a good question.

10 Right now to the best of our knowledge  
11 in San Diego this is going to be the first kind of  
12 portal for this type of effort. There's a number  
13 of sites out there, and the problem that we found  
14 through some of the research that we did prior to  
15 developing this concept with John was a lot of this  
16 information is buried in sites. For example, it  
17 would be like dod.newtechnology and it's buried in  
18 like the engineering area or some other obscure  
19 area within a web site for a command or an  
20 installation, and it's very difficult for the  
21 community to access that information or know how to  
22 navigate into that information on the RAB.

23 There's going to be -- right now we're  
24 looking at two options for sites for people to  
25 access. Right now it's nasni.navy.mil\rab or

1 navyregionsouthwest.navy.mil\rab.

2                   And so it's fairly simple. We've tried  
3 to cut out half the military address that you  
4 normally have. That was part of John's effort to  
5 make it very simple for people to go one site, one  
6 address to access the information.

7           MS. FIELD: And does that get you to -- I  
8 mean, if there's a RAB in say Norfolk or something,  
9 how do you -- are they going to have something  
10 similar?

11           MR. SULLIVAN: We've talked about having  
12 links to the other RAB sites. As far as expanding  
13 the portal for other RABs, that's probably not  
14 within the scope of John's contract, I would think,  
15 but there will be I think links for you to go to  
16 other RABs.

17           MS. FIELD: But other RABs have something  
18 similar. I guess that's my question.

19           MR. SAUNDERS: I'm the Environmental Public  
20 Affairs officer for Southwest Division NAVFAC, and  
21 I don't know if you're aware of this but we've had  
22 a Restoration Advisory Board web page on since '95,  
23 and I've been putting that together and supervising  
24 it since then.

25                   This is a good thing to do, but there



1 are a lot duplications going on here. The web page  
2 that I deal with has close to 20 RABs on it that  
3 we're responsible for on the West Coast and such.

4               So there's some things you're doing  
5 different here, but a lot of things have already  
6 been on. In fact, the web address is placed in the  
7 meeting minutes in every issue that comes out.  
8 Just to let you know that.

9               MR. GEILENFELDT: I think Marilyn's question  
10 was can she or anyone in the RAB have access to  
11 this information here or other RABs as well.

12              MR. LOCKE: Well, we initially talked about  
13 having some RAB page called Navyrab.com, but we  
14 thought that would be too ambitious for us to take  
15 on that web address and also our IT folks wouldn't  
16 appreciate that, but I can see in the future where  
17 that would happen.

18              Lee Saunders, he's got a big start on  
19 that. He's been putting these minutes in since the  
20 beginning, and this is the same idea.

21              MR. SAUNDERS: Yes. I have the fact sheets,  
22 the meeting minutes, the photographs, all that  
23 stuff. That's been going on since '95.

24              MR. LOCKE: Probably all the EFDs have  
25 similar --

1           MR. SAUNDERS: All the EFDs have web pages.  
2 Of course, ours is focusing on environmental -- IR,  
3 CERCLA -- and there's a web page for each of the  
4 RABs that we support. Again, there's close to 20  
5 of them.

6           MR. COLLINS: So we could have a link  
7 somehow to yours --

8           MR. SAUNDERS: Right. Absolutely.

9           MR. COLLINS: But that's for other -- well,  
10 it's more than Southern California now.

11          MR. SAUNDERS: Right. It's Northern  
12 California and Southern California.

13          MR. COLLINS: But to get to other bases  
14 halfway around the world or even as close as  
15 Virginia, I'm not sure if we can put that link in  
16 yet, although maybe somebody can research that.

17          MR. BONSAVAGE: Well, if you want to reach  
18 other RAB members, there is a mailing list out  
19 there that deals with the military Restoration  
20 Advisory Board.

21          MR. SAUNDERS: The Department of the Navy  
22 has put something like that together.

23          MR. BONSAVAGE: Yeah, tied to that mailing  
24 list. And then you can pose any questions you have  
25 to other RAB members around the globe basically on

1 the mailing list, too.

2 MR. GEILENFELDT: This mailing list, you  
3 mean like it would be the Internet access? Is that  
4 what you're talking about for the mailing list?

5 MR. BONSAVAGE: Yeah. I'm talking about an  
6 Internet mailing list.

7 MR. SAUNDERS: Well, did anybody from the  
8 North Island RAB attend the RAB workshop in Denver?

9 MR. GEILENFELDT: Uh-huh.

10 MR. SAUNDERS: They talked about that at the  
11 workshop.

12 MR. GEILENFELDT: In fact, I think I have  
13 that information. If you want, Marilyn, I can get  
14 it for you.

15 MS. FIELD: Thank you.

16 MR. LOCKE: And this is ever changing, too.  
17 It isn't static.

18 MR. BONSAVAGE: Right.

19 MR. COLLINS: And in our NELP program, which  
20 was designed for Navy Environmental Leadership,  
21 there was an Installation/Restoration program  
22 portion which we provided information for, but  
23 there's other information, too, for pollution  
24 prevention and compliance problems and other  
25 studies. So we have fact sheets for those things.

1                   And a person that is interested could  
2 then hit the link to go to the NELP Website and  
3 then look at that other information, too. Stuff  
4 that you might not know is otherwise available is  
5 interesting about how the Navy is handling  
6 contamination or pollution and what they're doing  
7 to prevent it or if they're trying new techniques.

8                   So that's interesting. It's not really  
9 part of our IR program, and we seldom bring it up  
10 here, but that will be part of this. And then  
11 there are several NELP fact sheets that are  
12 separate from the series that have been produced  
13 just for our program. We're up to No. 13 now. And  
14 there are NELP sheets also that describe some of  
15 the things we're doing or some of the processes  
16 we've tried out here that are beneficial to us, and  
17 you get access to that stuff.

18               MS. MARRON: Bill, what was the name of that  
19 group up at San Francisco State University? Are  
20 they still --

21               MR. SAUNDERS: You're talking about CPEO.

22               MS. MARRON: That's it.

23               MR. COLLINS: I haven't had anything to do  
24 with them.

25               MR. SAUNDERS: That's a totally different

1 separate thing. That has nothing to do with the  
2 Navy or the Department of Defense. That's an  
3 independent organization.

4 MS. MARRON: Right. They offer a certain  
5 kind of support to RAB members. That's kind of  
6 outside of the Navy but it is geared towards  
7 environmental cleanup of military bases.

8 MR. BONSAVAGE: They run that mailing list.

9 MR. LOCKE: What's the acronym for them?

10 MR. BONSAVAGE: It's the Center for Public  
11 something.

12 MR. SULLIVAN: I can give you the name in a  
13 moment.

14 MR. LOCKE: It's a lot of information.

15 MS. MARRON: Anyhow, Marilyn, it's a good  
16 resource to get in touch with other RABs and other  
17 cleanup groups.

18 MR. SAUNDERS: It's the Center for Public  
19 Environmental Oversight. In fact, their executive  
20 director sits on the Mountain View -- not the  
21 Mountain View but the Moffett Field -- Moffett  
22 Federal Air Field RAB up in Mountain View, Lenny  
23 Siegel.

24 MS. FIELD: This is really sort of off the  
25 particular point, but it just occurred to me -- I

1 haven't really thought about it before -- but you  
2 must face similar cleanup problems across the  
3 county. With all the different cleanup operations,  
4 there must be common issues from base to base, and  
5 I'm wondering how you and your cleanup efforts here  
6 tap into the expertise that's developed elsewhere  
7 in the country.

8 MR. COLLINS: Well, a lot of that  
9 information is shared at the Navy program managers  
10 meeting that's held every year. In the past,  
11 several of our members have gone and given  
12 presentations on the techniques we're using to  
13 clean up sites, and at other professional meetings,  
14 too, we give presentations. We do that all year  
15 long.

16 In fact, we'll be giving more this year  
17 for a group that comes to San Diego every year. We  
18 meet in March and give them a tour, but last year  
19 we made three presentations. The year before we  
20 made several. We've gone to Monterrey to another  
21 conference and given presentations, and then the  
22 Navy thing. And then we share by way of fact  
23 sheets when we generate those or our NELP guide  
24 will have the information, and we will send it out  
25 to all the military bases and share it that way.

1           The information doesn't flow as easily  
2 as you would think. Actually, everybody is really  
3 busy, and so it's hard to find time to call up a  
4 bunch of other people at other bases and find out  
5 how they're handling certain situations. And each  
6 base is really unique. Although we have many  
7 similarities, it's the same chemicals in a way,  
8 there's always a difference. Somebody has used  
9 something else that you haven't got and it's  
10 complicated the situation or the soil is different  
11 and it's hard to work with. And while things seem  
12 to be similar, they're often very different and the  
13 technology just doesn't work.

14           And along that line, I'll show you  
15 this. You remember a couple of years ago we were  
16 trying this NoVOX technology out at Site 9 --  
17 pumping air down into the ground and getting the  
18 contaminants to come up in bubbles, and the bubbles  
19 would burst, and we'd recover the vapor, and we ran  
20 it through our Thermatrix thermal oxidizer and we  
21 destroyed them, and that worked really great when  
22 it was running. But we couldn't keep it running  
23 for more than two or three weeks at a time before  
24 the air that we were putting into the ground caused  
25 the bacteria in the water to grow like crazy. It

1 was like having a greenhouse, but this was air.  
2 And we'd get precipitates in our wells and in the  
3 aquifer, and the bacteria would grow so fast it  
4 would clog the wells. It didn't work for us. So  
5 we wrote it off as a failure, although we spent a  
6 lot of money, but we did learn a lot from it.

7                   Now it turns out that same system was  
8 installed at Cape Canaveral -- I believe it's  
9 either at Cape Kennedy or the adjacent air force  
10 base -- and it works like a charm. We didn't know  
11 that. I don't know if they know that it failed for  
12 us, but it's good to know. And that's the kind of  
13 information that should be shared, and by having a  
14 good Website like this with some knowledge about  
15 it, people can find out.

16               MR. SULLIVAN: Any suggestions for  
17 improvement or cross links? For example, a link to  
18 the PDO site at Naval Region Southwest, et cetera.

19                   Anything you guys think would enhance  
20 or make this better, let us know or let John know  
21 and he can pass the word to us.

22               MR. CLARK: I have a little comment here.

23                   For me this is useless. I can't read  
24 it without a magnifying glass. I would like you to  
25 make the pictures larger so we could see it, and



1 especially the information thing down there where  
2 we can get to the Website.

3 MR. SULLIVAN: Actually, that's a good  
4 point. The Website will be Regional then. Right  
5 now if you try to find this, you won't find it  
6 until January.

7 MS. COONS: What is the Website for that in  
8 January then?

9 MR. ULMER: It's going to be one of two  
10 things: either [www.nasni.navy.mil/rab](http://www.nasni.navy.mil/rab) or  
11 [www.cnrsn.navy.mil/rab](http://www.cnrsn.navy.mil/rab). Those are the two options  
12 as we stand today.

13 MR. SULLIVAN: Simple to find.

14 MR. COLLINS: If somebody wants a larger  
15 copy of this right now, I too have to take off my  
16 glasses and get within an inch of it.

17 Can we get larger copies for anybody  
18 who wants one?

19 MR. SULLIVAN: Absolutely.

20 MR. COLLINS: Then call John and get one  
21 that you can read.

22 MR. LOCKE: Can we send it out via the  
23 minutes?

24 MR. COLLINS: And I'd like a regular one  
25 anyway for the Admin Record. This a good

1 challenge.

2 MR. LOCKE: Are there any other questions  
3 for Steve?

4 MR. SULLIVAN: Thank you very much.

5 MR. LOCKE: Our next agenda item is what  
6 we're going to talk about in the next RAB meeting.

7 Now, do we have a date for the next  
8 RAB? Have we set a date?

9 MR. COLLINS: No. It should be, if  
10 possible, the third Thursday, if possible.  
11 Valentine's Day? I don't think that's going to  
12 work. If we can, shoot for the 21st.

13 MS. BOYD: I'll have to call the library and  
14 see, but I will try for the 21st.

15 What other dates 'cause you really  
16 should block them in.

17 MR. COLLINS: Well, that's as far as we can  
18 go at this time. We have to renegotiate the  
19 contract. I would say if it fails, try the 28th,  
20 and we'll figure out a way to make it all work.

21 MS. BOYD: I'll call them tomorrow and  
22 e-mail you.

23 MR. COLLINS: Okay. Great. Thank you.

24 MR. LOCKE: Now how about some agenda items?  
25 Does anyone have any suggestions?

1           MR. COLLINS:  Yes.  The Site 5 Removal  
2   Action and Site 9 Removal Action.

3           MR. GEILENFELDT:  We'll need to have a  
4   progress report on the -- if we're going to go  
5   ahead and do the Flower Show booth in April, we'll  
6   have to have a progress report on that in April.

7           MR. COLLINS:  Oh, yes.  Flower Show, yes.

8           MR. GEILENFELDT:  If we're going to do it.  
9   We need to decide tonight if we want to do that so  
10  I can notify her and let her know.

11          MR. COLLINS:  I think we should do it, yes.

12          MR. LOCKE:  We did the Flower Show last  
13  year, and we talked to a lot of people.  I thought  
14  it was successful.

15          MR. COLLINS:  Not a soul showed up or  
16  volunteered, but it is worth it.  You know, it's a  
17  good effort.

18          MR. GEILENFELDT:  Well, Leticia made a  
19  suggestion, and I think it's very important.  This  
20  time let's get some names of people that might come  
21  to these meetings.  Get names and phone numbers.  
22  Get a list and ask people "Would you like for us to  
23  contact you when these meetings come up."

24                 I think that's an excellent idea, and  
25  we might get some activity out of that.  I know

1 people get phone calls a couple of days before.

2 Oftentimes it's a good reminder.

3 MR. LOCKE: Do we have a date?

4 MR. GEILENFELDT: Yes. April 12th and 13th.

5 We're going to have to discuss

6 volunteers. Foster helped last year. He was

7 great, and we had some other helpers. Bill was

8 there and John was there.

9 MR. COLLINS: We'll do that in February  
10 then.

11 MR. GEILENFELDT: All I have to do is tell  
12 her yes or no. That's all I need to tell her.

13 Shall I go ahead and tell her yes? All  
14 right. We have to make sure the Navy's going to  
15 provide the backdrops and all that sort of thing.

16 MR. COLLINS: And I'll make reservations for  
17 that backdrop, too.

18 MR. GEILENFELDT: Okay. Does anybody have  
19 any input on that? We'll need volunteers. You and  
20 you type thing.

21 MR. VAN ROOY: It was fun.

22 DR. MARSHALL: Did you say last year that  
23 the spotlight became -- you thought that was a good  
24 idea to maybe put it closer down or something?

25 MR. GEILENFELDT: The spotlight?

1           DR. MARSHALL: The spot where we were. You  
2 didn't like that place. You wanted to be closer to  
3 the door or something.

4           MR. GEILENFELDT: Actually, that location we  
5 were at was not too bad, but we have pretty much  
6 the choice when we go in there. They don't really  
7 fill up all those booths, ironically.

8           DR. MARSHALL: I just thought last year you  
9 said something about --

10          MR. GEILENFELDT: Well, I, of course, wanted  
11 the one up in front. We actually had a choice,  
12 Foster, and she offered this one. What I will do,  
13 though, is negotiate that with her and make sure we  
14 have our choice, whichever one we want.

15                 But that's where most people exit is  
16 where I suggested that one spot. We had the Red  
17 Cross next to us, but that was the only other booth  
18 that was there, as I recall. But I'll look into  
19 that and let you know in February.

20          MR. LOCKE: Should we use the same sheets  
21 that we used last year?

22          MR. COLLINS: We'll do new fact sheets.

23          MR. GEILENFELDT: The main thing is I would  
24 like to have literature such as we did, and have  
25 some kind of a mailing list or a call list that I

1 can use.

2 MR. VAN ROOY: And a sign.

3 MR. GEILENFELDT: Great idea.

4 MR. COLLINS: That's probably it. That's  
5 enough for tonight. We'll fill that out as it gets  
6 closer.

7 MR. LOCKE: Another agenda item we have is  
8 we have an old RAB member, Dorothy Marron, and she  
9 put in an application for the RAB.

10 Does anybody have a motion to make her  
11 a RAB member?

12 MR. GEILENFELDT: I make the motion.

13 MR. COLLINS: I just have a question.

14 Did you officially resign last time or  
15 did you --

16 MS. MARRON: I officially resigned as the  
17 Co-Chair. I don't know if I officially resigned as  
18 a RAB member.

19 MR. COLLINS: I would say she's still a  
20 member. She didn't resign.

21 MR. GEILENFELDT: You're in, Dottie.

22 MR. COLLINS: But in either case, we're not  
23 going to let you go.

24 MS. MARRON: Thanks. It's good to be back.

25 MR. GEILENFELDT: I want to thank everybody

1 for attending this evening. It's always nice to  
2 have Leticia and Dan here. They drive a long way  
3 to come here.

4 I particularly appreciate all you  
5 Coronado residents attending this evening. We had  
6 a different conflict tonight with all this ongoing  
7 activity -- bands and dances and shopping and et  
8 cetera.

9 MR. COLLINS: I think this is the biggest  
10 number of RAB members we've had in a long time.  
11 There's five from the community, which is great.

12 MR. LOCKE: Any other items? All right.

13 The meeting is adjourned.

14

15 (Whereupon, at 8:10 p.m. the RAB meeting  
16 was adjourned.)

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25 STATE OF CALIFORNIA )

1 : SS

2 COUNTY OF SAN DIEGO )

3

4 I, Nancy A. Lee, CSR No. 3870, do hereby  
5 certify that I reported in shorthand the above  
6 proceedings on Thursday, November 15, 2001, at 640  
7 Orange Avenue, Winn Room, in the City of Coronado,  
8 County of San Diego, State of California; and I do  
9 further certify that the above and foregoing pages  
10 numbered 1 to 71, inclusive, contain a true and  
11 correct transcript of all of said proceedings?

12 Dated: \_\_\_\_\_, 2001.

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NANCY A. LEE

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